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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,659	11/09/2005	**Walter Lindner**	081542-000000US	7089

20350 7590 08/03/2010

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EXAMINER	
BELYAEV, YANA	
ART UNIT	**PAPER NUMBER**
1791	

MAIL DATE	DELIVERY MODE
08/03/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,659	LINDNER, WALTER	
	Examiner	Art Unit	
	YANA BELYAEV	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-39, 41-46, and 65* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-39,41-46 and 65* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 33-35, 37-39, 41-42, and 65 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 19823515 (Badin hereinafter).

Regarding claims 33-35 and 65, Badin discloses a plant for the manufacture of glass stoppers provided with a head part for the closing of bottles (page 1, paragraph 3), comprising a multi-part mold (page 1, paragraph 12, "two tools") which determines, in the closed state, the negative contour of the stopper to be manufactured, a feeder system for supplying the mold with molten glass (page 3, paragraph 8, "feeder of an inlet gutter"), a multistation press (page 2, paragraph 11, "the machine covers two figuration stations) and an arrangement for the removal and for the further handling of the glass stoppers produced (paragraph 5, "conveyor belt"),

characterized in that, the mold is formed by a base part (Figure, element 8) having a cut-out (page 1, paragraph 11,"bottom end of mold") corresponding to a first part length of a stopper;

a middle part of two part elements (Figure, elements 2 and 3) of a mold which are in particular displaceable relative to one another and perpendicular to the longitudinal axis (page 1, paragraph 12, "vertical axis") of the mold, which can be coupled in a self-centering manner and which determine a hollow space corresponding to a second part length of a stopper and to at least

a main region of the head part in the coupled state and in the state contacting the base part (page 3, paragraph 5, "hollow space");

and an upper part (Figure, element 4) having a central pressing stamp (Figure, element 5) axially displaceable relative to the upper part and closing the hollow space of the head part for the forming of a tolerance compensating recess (page 3, paragraph 8, "collar" "thick fluctuations") in the head part of the stopper (Figure, element 11).

Badin discloses that the upper part (Figure, element 4) of the mold forms a planar surface on the disk-shaped head part (page 2, paragraph 4, "planar"), on the one hand, and a part region of the rounding, on the other hand, which merges into a cylindrical outer contour of the head part (page 3, paragraph 8, "collar").

Badin discloses that the hollow determined by the part elements (Figure, elements 2 and 3) of the mold forming the middle part extends axially beyond the planar surface of the head part and bounds the head part at its outer periphery, on the one hand, and at a radially outwardly disposed marginal region of the planar surface, on the other hand.

Badin discloses that the upper part with a centrally guided pressing stamp closing the hollow space of the head part has a ring nose (end of element 5 closest to element 11) which engages in a shape-matched manner into the hollow space determined by the part elements of the mold, with the outer diameter of the ring nose being smaller than the outer diameter of the head part (Figure, element 5 and 11).

Regarding claim 37, Badin discloses that the first part length of the stopper expands, preferably conically, starting from the base surface of the base part and ends at a position of discontinuity of the stopper diameter (Figure, element 11).

Regarding claim 38, Badin discloses that the part elements (Figure, elements 2 and 3) of the mold of the middle part, which can be coupled in a self-centering manner, form, on the one hand, the second part length of the stopper of in particular cylindrical shape and reduced diameter extending from the position of discontinuity up to the head part (reduced diameter part of element 11).

Badin does not specifically disclose that the head part is preferably designed in disk shape over practically its total height.

However, Badin does disclose that the head part is used as a stopper for bottles, such as beer and soda bottles (page 1, paragraphs 1 and 3). Since bottle openings are round, and to be an effective stopper, the stopper must make a tight seal with the bottle opening. Thus the diameter of the stopper must be a disk shape over its total height.

Regarding claim 39, Badin discloses that, when the mold is closed, the dividing line between the upper part (Figure, element 4) of the mold and the part-elements (Figure, elements 2 and 3) of the mold forming the middle part of the mold is disposed beneath the planar surface (page 2, paragraph 4, "planar") of the stopper (Figure, element 11) in the region of the stopper rounding.

Regarding claim 41, Badin discloses that the diameter of the pressing stamp (Figure, element 5) is larger than the diameter of the second part length of the stopper (Figure, element 11, part between elements 2 &3).

Regarding claim 42, Badin discloses that the pressing stamp (Figure, element 5) is actuated in lagging manner with respect to the upper part (Figure, element 4) of the mold and a

central compression spring, at least one pneumatic cylinder is/are fitted between the pressing stamp and the upper part (page 3, paragraph 6, "mechanical and/or pneumatic").

2. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Badin as applied to claims 33-35, 37-39 and 41-42 above, in view of US Patent 4,772,306 (Davey hereinafter).

The teachings of Badin are detailed in the rejection of claims 33-35, and 37-42 under 35 USC 103(a) above.

Regarding claim 46, Badin does not discloses that a fall and guide channel is provided in the feed station for the supply of glass gobs in a centered manner with respect to the mold from a pre-settable drop height.

However, Davey discloses a glass gob delivery system which supplies glass gobs in a centered manner with respect to the mold (column 3, lines 16-18) and from a pre-settable drop height (column 4, lines 42-45), wherein since the height is different is interpreted by the examiner that the height can be pre-set.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Davey with the teachings of Badin since Badin discloses shaping glass gobs in a mold (Badin, abstract) and Davey discloses delivering glass gobs to a mold (Davey, abstract).

3. Claims 36 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badin as applied to claims 33-35, 37-39 and 41-42 above, in view of DE 19649030 (Rauh hereinafter).

The teachings of Badin are detailed in the rejection of claims 33-35, and 37-42 under 35 USC 103(a) above.

Regarding claim 36, Badin does not disclose that the cut- out of the base part is bounded at the base side by a plunger having an ejection function and whose end face is smaller than the base surface of the cut-out; and in that the base is in particular made in one part.

Rauh discloses that the cut- out of the base part (Figures 4 and 5, element 9) is bounded at the base side by a plunger having an ejection function (page 6, claim 5, "ejector") and whose end face is smaller than the base surface of the cut-out (Figures 4 and 5, top of element 9); and in that the base is in particular made in one part (Figures 4 and 5, element 9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 43, Badin does not disclose that the plunger having an ejection function can be moved into a retraction position enlarging the mold depth during the feed process.

However, Rauh discloses a plunger having an ejection function (page 6, claim 5, "ejector").

While Rauh does not specifically state that the plunger can be moved into a retraction position enlarging the mold depth during the feed process, it is obvious that if the ejector is in the process of ejecting a glass gob from the mold, the available space in the mold would be smaller than if the ejector is not in the process of ejecting a glass gob from the mold.

Regarding claim 44, Badin does not discloses that with the mold upper part positioned with a lateral offset, the otherwise closed mold is fed by a feeder system designed for droplet

operation with glass gobs which fall through the middle part of the mold without contact and whose diameter to length ratio is disposed in the range from approximately 1 : 3.5 and whose length is preferably selected to be larger than the depth of the hollow space of the mold.

However, Rauh discloses that with the mold upper part positioned with a lateral offset (page 4, paragraph 1, "sliding mechanism…radially outward advanced"), the otherwise closed mold is fed by a feeder system designed for droplet operation with glass gobs (page 6, claim 4, parts (a) and (b)).

Rauh does not disclose that glass gobs which fall through the middle part of the mold without contact and whose diameter to length ratio is disposed in the range from approximately 1: 3.5 and whose length is preferably selected to be larger than the depth of the hollow space of the mold.

However, Rauh does disclose that glass drop is metered (page 4, paragraph 1, "metered glass drop "). Thus the size, shape, and amount of the glass drop is established as a result effective variable. It would have been obvious to one of ordinary skill in the art at the time of the invention to have optimized the size, shape, and amount of the glass drop depending on the size and shape of the mold and viscosity of the particular glass (page 4, paragraph 1, "less deep into the molding…"). However, the optimization of a range or other variable within the claims that flows from the "normal desire of scientists or artisans to improve upon what is already generally known" is prima facie obvious. *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) (determining where in a disclosed set of percentage ranges the optimum combination of percentages lies is prima facie obvious). The discovery of an optimum value of a variable in a known process is usually obvious. *In re Aller*, 220 F.2d 454,456 (C.C.P.A. 1955).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Regarding claim 45, Badin does not disclose that the station designed for the feeding of the mold with glass gobs is simultaneously made as a station for the carrying out of the pressing process.

However, Rauh discloses that the station designed for the feeding of the mold with glass gobs is simultaneously made as a station for the carrying out of the pressing process (page 5, claim 4, part (c)).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the feeder system with the mold disclosed by Badin since both Badin and Rauh disclose a method of molding glass to make bottle stoppers (Badin, page 1, paragraph 1).

Response to Arguments

1. Applicant's arguments filed 21 May 2010 have been fully considered but they are not persuasive.

The Applicant argues that Badin does not teach nor suggest, inter alia, "an upper part having a central pressing stamp axially displaceable relative to the upper part and closing the hollow space of the head part for the forming of a tolerance compensating recess in the head part of the stopper," as required by claim 33.

The Office Action recited on page 4 that element 5 of Badin anticipates this feature. However, the disclosure of Badin does not reasonably support this conclusion. With reference to

the figure of Badin, element 5 clearly does not come into contact with the head part of a stopper. The assumed head part 11 of Badin is shown to be in contact with an element 8, and which is described in the translation to lock the bottom of the mold. Clearly, the head part 11 has no contact whatsoever with the element 5, and therefore this rejection is not supported by the reference.

The Examiner respectfully disagrees. Element 5 is shown to be contact with the head part of a stopper, element 11, in the Figure of Badin. Furthermore, Badin states, "Afterwards will the press ram 5 operated, in order to press the glass post on its top and form the full glass article. From the fig is clear apparent that the underside of the press ram, the contact region between press ram and glass, is small as the overhead surface of the molded article. Further it is the fig which shows the press ram during pressing to infer that he can with presses into the overhead surface of the molded article penetrate," (page 3, paragraph 8).

The Applicant states that "wherein the upper part of the mold forms a planar surface on the head part, and a part region of a stopper rounding of the stopper, and merges into a cylindrical outer contour of the head part," is not reasonably recited by Badin. Badin shows that element 4 of the mold never comes into contact with the glass, as the negative contour of the stopper manufactured is only determined by the base pan, the middle pan and the axially displaceable pressing stamp 5.

The Examiner respectfully disagrees. The upper part of the mold includes a central pressing stamp (claim 33, "and an upper part having a central pressing stamp"). Thus, the upper part, specifically the central pressing stamp which is part of the upper part, forms a planar surface on the head part (Figure, planar part of element 11 and page 2, paragraph 4, "planar"),

and a part region of a stopper rounding of the stopper that merges into a cylindrical outer contour of the head part (Figure, rounded part of element 11 and page 3, paragraph 8, "collar").

The Applicant further states that the EPO translation of the Badin reference recites (page 1, paragraph 5, from below) that it is impossible to specify the volume of a glass post precisely and therefore one is working with a volume which is larger as required for the production of the body. The excess glass material is pressed by the stamp into a small ring room surrounding the stamp in its end position. A glass ring formed due to the excess of glass must always be cut off and a subsequent polishing of the body is necessary. This is clearly disclosed by Badin

The Examiner respectfully disagrees. Badin states, "As already mentions...whereby it shows up in the case of the fig that the article at its edge can exhibit a collar. Is from the inventors found that the agents, which permit the determination of the volume of the glass post make it possible that the thick fluctuations of the overhead surface of the so formed solid body do not exceed 1.5 mm. This thick fluctuation is both bottom aesthetic and functional aspect perfect acceptable…The produced bodies can thus in a single step manufactured become, without a finishing stage would be requires such as a cutting and polishing. Although the volume of the glass post cannot become precise same that of the article fixed which can be manufactured, of the inventors provided to keep the material surplus of the article in the regions where the manufacturing tolerances are not narrow," (page 3, paragraphs 8-10).

Thus, the volume of the glass post is roughly specified and any excess material goes to the collar, which does not have a very narrow specification regarding thickness. Thus, a finishing stage which would require cutting off any excess glass and polishing is **not** necessary.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YANA BELYAEV whose telephone number is (571)270-7662. The examiner can normally be reached on M-Th 8:30am - 6pm; F 8:30 am- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. B./
Examiner, Art Unit 1791

/Jason L Lazorcik/
Primary Examiner, Art Unit 1791